

## **REMARKS**

Following entry of the foregoing amendments, claims 1, 2, 6 to 8, and 11 will be pending in the application. Claims 1, 6, and 8 have been amended herein. No claims have been canceled, and no new claims have been added.

Applicants respectfully request reconsideration of the rejections of record in view of the foregoing amendments and the following remarks.

### **Alleged Lack of Enablement**

Claims 1, 2, 6 to 8, and 11 have been rejected under 35 U.S.C. § 112, first paragraph for allegedly failing to comply with the enablement requirement. The Office asserts that the specification does not enable those skilled in the art to make and use solvates and hydrates of compounds of formula (1) without undue experimentation. Without conceding the correctness of this assertion, and in an effort to advance prosecution of the present application, claim 1 has been amended by revising the text “and the salts, solvates, hydrates and N-oxides thereof” in the last line to “or a salt or N-oxide thereof”. The rejection has thus been obviated and, accordingly, applicants respectfully request withdrawal thereof.

### **Alleged Indefiniteness**

Claims 1, 2, 6 to 8, and 11 have been rejected under 35 U.S.C. § 112, second paragraph as allegedly indefinite for the following reasons.

First, the Office asserts that the phrase “A compound...and the salts...and N-oxides thereof” is unclear because it is uncertain whether a compound or a salt of the compound is being claimed or whether a mixture of a compound and a salt of the compound is being claimed. Without conceding the correctness of this assertion, and as noted above, claim 1 has been amended to advance prosecution and to recite “A compound of formula (1)...or a salt or N-oxide thereof.” The rejection has thus been obviated and, accordingly, applicants respectfully request withdrawal thereof.

Second, the Office asserts that claim 8 is indefinite because it depends from canceled claim 5. Claim 8 has been amended to depend from claims 6 and 7, thereby obviating the rejection. Accordingly, applicants respectfully request withdrawal of the rejection.

Third, the Office asserts that claim 8 is indefinite because no antecedent basis for the phrase “-R<sup>4b</sup> or -Alk(R<sup>4b</sup>)<sub>m</sub>” exists in claims 6 and 7, from which claim 8 depends. Without conceding the correctness of this assertion, Claim 8 has been amended to delete the phrase “-R<sup>4b</sup> or -Alk(R<sup>4b</sup>)<sub>m</sub>”, obviating the rejection. Applicants accordingly, respectfully request withdrawal thereof.

Fourth, the Office asserts that claim 8 is indefinite because the scope of the linker atoms and groups encompassed by the phrase “a linker atom or group” in the definition of “X<sup>1a</sup>” is unclear. Without conceding the correctness of the assertion, and to advance prosecution of the present application, claim 8 has been amended to recite that X<sup>1a</sup> is a direct bond or a linker group selected from -C(O)-, -C(S)-, -S(O)-, -S(O)<sub>2</sub>-, -N(R<sup>7</sup>)-, -C(R<sup>7</sup>)<sub>2</sub>-, -CON(R<sup>7</sup>)-, -OC(O)N(R<sup>7</sup>)-, -CSN(R<sup>7</sup>)-, -N(R<sup>7</sup>)CO-, -N(R<sup>7</sup>)C(O)O-, -N(R<sup>7</sup>)CS-, -SON(R<sup>7</sup>)-, -SO<sub>2</sub>N(R<sup>7</sup>)-, -N(R<sup>7</sup>)SO<sub>2</sub>-, -N(R<sup>7</sup>)CON(R<sup>7</sup>)-, -N(R<sup>7</sup>)CSN(R<sup>7</sup>)-, -N(R<sup>7</sup>)SON(R<sup>7</sup>)-, and -N(R<sup>7</sup>)SO<sub>2</sub>N(R<sup>7</sup>)-. This amendment is supported throughout the specification as originally filed, including, for example, original claim 8; page 18, lines 7 to 8; and page 11, lines 14 to 20. The rejection has thus been obviated and, accordingly, applicants respectfully request withdrawal thereof.

Fifth, the Office asserts that the terms “-X<sup>1a</sup>(Alk<sup>a</sup>)<sub>p</sub>NR<sup>7a</sup>R<sup>7b</sup>,” “-X<sup>1a</sup>(Alk<sup>a</sup>)<sub>p</sub>NHet<sup>1</sup>,” and “-X<sup>1a</sup>(Alk<sup>a</sup>)<sub>p</sub>Ar<sup>2</sup>” as recited in claim 8 are indefinite because insufficient antecedent basis for these groups is provided in claims 6 and 7, from which claim 8 depends. Applicants respectfully request reconsideration and withdrawal of the rejection because sufficient antecedent basis does, in fact, exist in claim 6 for the recited groups. In this regard, claim 6 recites that R<sup>4</sup> can be a substituted amino group, and when read in light of the teachings in the present application, antecedent basis is provided for the terms “-X<sup>1a</sup>(Alk<sup>a</sup>)<sub>p</sub>NR<sup>7a</sup>R<sup>7b</sup>” and “-X<sup>1a</sup>(Alk<sup>a</sup>)<sub>p</sub>NHet<sup>1</sup>.” Claim 6 also recites that R<sup>4</sup> can be an optionally substituted heteroaryl group, providing antecedent basis for the “-X<sup>1a</sup>(Alk<sup>a</sup>)<sub>p</sub>Ar<sup>2</sup>” group. Sufficient antecedent basis is therefore provided in claim 6 for the “-X<sup>1a</sup>(Alk<sup>a</sup>)<sub>p</sub>NR<sup>7a</sup>R<sup>7b</sup>,” “-X<sup>1a</sup>(Alk<sup>a</sup>)<sub>p</sub>NHet<sup>1</sup>,” and “-X<sup>1a</sup>(Alk<sup>a</sup>)<sub>p</sub>Ar<sup>2</sup>” groups recited in claim 8, and applicants thus respectfully submit that recitation of these groups in claim 8 does not render the claim indefinite. Accordingly, applicants respectfully request withdrawal of the rejection.

Finally, the Office asserts that claim 8 is indefinite because a mismatch of parenthesis is present in the “-X<sup>1a</sup>(Alk<sup>a</sup>)<sub>p</sub>NR<sup>7a</sup>R<sup>7b</sup>” group recited in the claim. Claim 8 has been

amended to remove the parentheses after the “R<sup>7b</sup>” moiety. This amendment is supported throughout the specification as originally filed, including, for example, page 18, line 7. The rejection has thus been obviated, and applicants accordingly, respectfully request withdrawal thereof.

### **Alleged Obviousness**

Claims 1, 2, 6, 7, and 11 have been rejected under 35 U.S.C. § 103(a) as allegedly obvious over U.S. patent number 5,439,912 (“the Hubele patent”). The Office asserts that the patent teaches 2-phenylaminopyrimidine compounds that are structural analogs of the claimed compounds, rendering the claimed compounds *prima facie* obvious. Applicants respectfully request reconsideration and withdrawal of the rejection because the compounds recited in the claims as amended herein would not have been obvious in light of the Hubele patent.

Preliminarily, applicants note that claim 1 has been amended to define “X<sup>1</sup>” as being a linker group selected from -C(O)-, -C(S)-, -S(O)-, -S(O)<sub>2</sub>-, -N(C<sub>1-6</sub> alkyl)-, -CON(R<sup>7</sup>), -OC(O)N(R<sup>7</sup>)-, -CSN(R<sup>7</sup>)-, -N(R<sup>7</sup>)CO-, -N(R<sup>7</sup>)C(O)O-, -N(R<sup>7</sup>)CS-, -SON(R<sup>7</sup>)-, -SO<sub>2</sub>N(R<sup>7</sup>)-, -N(R<sup>7</sup>)SO<sub>2</sub>-, -N(R<sup>7</sup>)CON(R<sup>7</sup>)-, -N(R<sup>7</sup>)CSN(R<sup>7</sup>)-, -N(R<sup>7</sup>)SON(R<sup>7</sup>)-, and -N(R<sup>7</sup>)SO<sub>2</sub>N(R<sup>7</sup>). Support for the amendments is found throughout the specification as originally filed, including, for example, page 11, lines 15 to 20.

The Hubele patent fails to describe or suggest compounds having a group that corresponds to the X<sup>1</sup> group of the present claims. In this regard, R<sup>2</sup> of the present claims is defined as being -X<sup>1</sup>-R<sup>3</sup>. The definition of X<sup>1</sup> is discussed above, and R<sup>3</sup> is defined as being an optionally substituted aliphatic, cycloaliphatic, heteroaliphatic, heterocycloaliphatic, aromatic or heteroaromatic group. In contrast, the group in the compounds of formula (I) in the Hubele patent that corresponds to R<sup>2</sup> of the claimed compounds, also identified as R<sub>2</sub>, is defined as being C<sub>1</sub>-C<sub>4</sub>alkyl; halo- or hydroxyl-substituted C<sub>1</sub>-C<sub>2</sub>alkyl; C<sub>3</sub>-C<sub>6</sub> cycloalkyl; or C<sub>3</sub>-C<sub>6</sub> cycloalkyl mono-to tri-substituted by identical or different substitutents selected from methyl and halogen. The R<sub>2</sub> group of the compounds of the Hubele patent thus does not include an X<sup>1</sup> moiety, which is part of the corresponding group (*i.e.*, R<sup>2</sup>) in the compounds defined in the present claims. The compounds described in the Hubele patent are therefore not structural analogs of the presently claimed compounds, and the claimed compounds thus

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would not have been *prima facie* obvious in light of the compounds described in the Hubele patent. Accordingly, applicants respectfully request withdrawal of the rejection.

**Conclusion**

Applicants believe that the foregoing constitutes a complete and full response to the official action of record. An early and favorable action is accordingly, respectfully requested.

Respectfully submitted,

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